

REMARKS

Claims 1, 3, 5-7, 10-11, 13-15 and 18 remain in the application. Claims 2, 4, 8-9, 12 and 16-17 were previously canceled.

Claim 1 has been amended to require that applicant's vegetable yogurt be made with "cold plain yogurt comprising active cultures of *Lactobacillus casei*, *Lactobacillus reuteri* and *Bifidobacterium bifidum*." Said claim no longer requires cultures of *Lactobacillus acidophilus*. This amendment is supported by the specification, and no new matter has been added.

The present invention, as recited by amended claims 1, 3, 5-7, 10-11, 13-15 and 18, relates to a ready to eat cooked and pureed vegetable **yogurt** and a process for the production thereof. This vegetable yogurt comprises (1) cooked pureed vegetables, (2) yogurt based on soy proteins and (3) active yogurt cultures. In a preferred embodiment, applicant's vegetable yogurt may also comprise milk proteins. As currently amended, the vegetables are to be individually cooked prior to being cooled and pureed. Advantageously, individually cooking the vegetables that comprise the puree insures that none of the vegetables comprising the puree are overcooked (since each vegetable requires a different cooking time and temperature).

As amended, applicant's vegetable yogurt comprises active cultures of *Lactobacillus casei*, *Lactobacillus reuteri* and *Bifidobacterium bifidum*. Further, applicant's invention requires that no artificial additives and no preservatives be added to the ready to eat vegetable yogurt. Applicant has found that adding cold pureed vegetables to cold plain yogurt, and maintaining cold temperatures, prevents the yogurt from fermenting the vegetable and thereby preserves taste and nutritional properties of the vegetables. Applicant's current claims require that the cooked pureed vegetables range from 40 to 60 percent by weight. The weight percent required

by applicant's present claims provides a vegetable yogurt having a significant weight percentage of vegetables without the presentation of preservatives or other non-natural additives, thereby yielding a highly nutritional food packed with essential vitamins, minerals, and fibers inherent in the vegetable utilized.

Rejection under 35 U.S.C. §121

Claims 5 and 13 were rejected under 35 U.S.C. 112, first paragraph, for failing to comply with the enablement requirement. The Examiner indicated that applicant does not teach "soy in combination with milk." Applicant respectfully disagrees with the Examiner.

The specification discloses that the yogurt used "is preferably a soy yogurt, however yogurts made from milk protein may be used" (see page 15, lines 21-22). This description **does not preclude** use of a soy based yogurt containing milk proteins. Further, it is submitted that non-vegan, soy based yogurts are known to the public. Therefore, an individual skilled in the relevant art would know of said non-vegan soy yogurts, and be able to, with reasonable experimentation, make applicant's vegetable yogurt as recited by claims 5 and 13.

In view of these remarks, reconsideration of the rejection of claims 5 and 13 under 35 U.S.C. 112 is respectfully requested.

Rejection under 35 U.S.C. §103(a)

The Examiner has maintained the previous obviousness rejection of claims 1, 3, 5-7, 10-11, 13-15 and 18 under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent No. 61231958 to Hara, Japanese Patent No. 55007013 to Kazutada et al., Japanese Patent No. 3112454 to Masahiro et al., and Great Britain Patent No. 2294625 to Oliver.

Hara discloses a food product and process to produce a food excellent in hygienicity,

nitrient, safety, taste and low calorific value, by using MISO (fermented bean paste) and/or NYUFU (fermented milk product such as yogurt) as an agent to retard the freeze- denaturation of a food. At least a part of the taste of original unfrozen food is produced by the freezing and thawing of a raw material. In the above process 100 pts. of a food such as cereal, potato, cake, bean, fish, shellfish, meat, egg, vegetable, seasoning, cooked food, algae, etc., of the normal state is mixed with ≥ 3 pts. of MISO, NYUFU, desalted MISO, desalted NYUFU or their mixture or a mixture of ≥ 1 pt. of said MISO or NYUFU and a seasoning such as sugar, oil and fat, etc. As indicated by the Hara abstract, the Hara food product contains no more than "3 pts." (i.e., 3 parts) MISO or NYUFU relative to 100 parts other ingredients. Therefore, it is submitted that since **no more than 3 of the 103 parts of this food product are yogurt, the Hara food product is not a yogurt product** as taught by applicant. Rather, the *possible* additional of NYUFU to the product merely serves as an agent to retard the damage caused by freezing. It is further submitted that Hara does not require the inclusion of active yogurt cultures in the final product, which is required as an ingredient for applicant's vegetable yogurt food product.

Kazutada et al. discloses a food product and process to prepare a yogurt containing vegetables having softened fermentation odor and improved flavor, by adding vegetables to the yogurt during the preparation step. Finely cut or ground vegetables, extracts, juices, heated or cooked vegetables are added to yogurt before or after the fermentation. The vegetables are added to one or both layers of yogurt and jelly prepared by using a gelatinizing agent. It is submitted that, unlike Kazutada, applicant does **not** teach use of a gelatinizing agent. Therefore, applicant's vegetable yogurt and the Kazutada product will inevitably have different consistencies. It is further submitted that Kazutada, despite the mention of fermentation, does

not require the inclusion of active yogurt cultures in the final food product, which is required as an ingredient for applicant's vegetable yogurt food product.

Masahiro et al. discloses a *yogurt jelly* containing vegetable and process to suppress grassy smell of vegetables and improve the taste and flavor by mixing vegetables, yogurt and a gelling agent. The objective vegetable containing yogurt jelly is produced by mixing vegetables, yogurt and a gelling agent and forming the mixture into a prescribed form. There is no particular restriction on the kind of vegetable and any kind of leaf vegetables, root vegetables, fruit vegetables, stem vegetables or flower vegetables can be used as the vegetable. A conventional plain yogurt on the market can be used as the yogurt. The gelling agent is e.g. carrageenan, agar, gelatin, gellan gum, pectin, xanthan gum or their mixture. It is submitted that Masahiro teaches a "yogurt jelly" product, whereas applicant teaches a yogurt product that does not contain "jelly." As with Kazutada, applicant's vegetable yogurt and the Masahiro product will inevitably have different consistencies. It is further submitted that Masahiro does not require use of active yogurt cultures (merely stating that a "conventional" yogurt may be used), which are required as an ingredient for applicant's vegetable food product.

Oliver discloses savory flavoring for yogurts that comprise rosaceous fruit, preferably one or more of apple, pear, plum and/or damson. The savory flavoring additionally comprises one or more vegetables, herbs and/or spices. The application also provides yogurts flavored with such savory flavorings. It is submitted that Oliver does not require (or even mention) use of active yogurt cultures, which are required as an ingredient for applicant's vegetable food product.

The Examiner indicated that applicant's vegetable yogurt, as recited by claims 1, 3, 5-7,

10-11, 13-15 and 18, fails to produce a “new, unexpected, and useful function.” Applicant respectfully disagrees with the Examiner.

None of the above noted references teach use of active yogurt cultures as a *required ingredient* in their final food product. By contrast, amended claim 1 clearly states that active cultures of *Lactobacillus casei*, *Lactobacillus reuteri* and *Bifidobacterium bifidum* are a necessary ingredient in applicant’s vegetable yogurt food product. Further, claim 11 recites that use of a yogurt containing active cultures is necessary in the process to manufacture applicant’s vegetable yogurt food product. It is well known in the art that inclusion of these active cultures is beneficial to health, particularly with regards to the digestion process.

Additionally, applicant’s vegetable yogurt, as recited by amended claim 1, requires that the yogurt be based on **soy proteins**. This requirement is reiterated in claim 11, which states that soy based yogurt is to be used in the manufacturing process. It is submitted that there is no such requirement to use yogurt based on soy proteins in the above noted references.

As noted supra, claims 3, 5–7 and 10 represent preferred embodiments of the food product recited by claim 1 and are dependent thereon. Further, claims 13-15 and 18 represent preferred embodiments of the process recited by claim 11 and are dependent thereon. These dependent claims contain all the limitations of the claim to which they depend.

Therefore, for reasons discussed above, use of conventional yogurt cultures and the claimed percents in that of Hara, Kazutada, Masahiro or Oliver would **not** produce applicant’s vegetable yogurt food product. The resulting yogurt would **not** contain active cultures, and it would **not** be based on soy proteins.

Further, as noted supra, applicant's invention requires a ready to eat vegetable yogurt and process, comprising (i) cooked and pureed vegetables that are rapidly cooled before pureeing to yield a cold uniform consistency, (ii) cold plain yogurt based on soy proteins comprising active cultures of Lactobacillus casei, Lactobacillus reuteri and Bifidobacterium bifidum, (iii) natural additives to enhance flavor and taste, (iv) the cold cooked pureed vegetables, the cold plain yogurt with active cultures and the natural additives blended to form a cold homogeneous, uniform mixture of ready to eat vegetable yogurt, wherein the cold cooked pureed vegetables range from 40 to 60 percent by weight, and wherein no artificial additives or preservatives are added to the ready to eat vegetable yogurt; and (v) the ready to eat vegetable yogurt stored at refrigeration temperatures until consumed to prevent the active cultures of the yogurt from fermenting the cold cooked pureed vegetables so that the cold cooked pureed vegetables retain their natural, unfermented, chemical makeup. Further, applicant's claims require that the cold cooked pureed vegetables remain unfermented when the vegetable yogurt is stored at refrigeration temperatures.

None of Hara, Kazutada, Masahiro or Oliver disclose the following elements required by applicant's claims: (1) using cooked vegetables; (2) pureeing cold vegetables to yield a cold puree; (3) the cold cooked pureed vegetables ranging from 40 to 60 percent by weight; (4) no artificial additives or preservatives; and (5) vegetables remaining unfermented. Further, as discussed above, Hara, Kazutada, Masahiro and Oliver do not require use of (1) yogurt based on soy proteins and (2) use of yogurt containing active cultures.

Hara discloses using MISO (fermented bean paste) and/or NYUFU (fermented milk product such as yogurt) as an agent to retard the freeze- denaturation of a food, wherein at least a

part of the taste of original unfrozen food is produced by the freezing and thawing of a raw material. Hara teaches using 100 pts. of a food such as cereal, potato, cake, bean, fish, shellfish, meat, egg, vegetableof the normal state being mixed with ≥ 3 pts. of MISO, NYUFU, desalted MISO, desalted NYUFU or their mixture or a mixture of ≥ 1 pt. of said MISO or NYUFU and a seasoning such as sugar, oil and fat, etc. The vegetables used in Hara are of the “normal state” and therefore would be raw or uncooked vegetables. There is no suggestion or teaching in Hara that the vegetables are pureed. Therefore, Hara does not only fail to disclose using cooked, cooled pureed vegetables as is required by applicant’s claims, but tends to teach away from using same. Hara is merely a process for freezing vegetables, and cannot even be viewed as a vegetable yogurt product, as the amount of NYUFU is minimal, ≥ 3 pts., as compared to the vegetable, 100pts. Therefore, Hara does not teach or suggest all the claim limitations of applicant’s claims.

Kazutada et al. discloses a food product and process to prepare a yogurt containing vegetables having softened fermentation odor and improved flavor, by adding vegetables to the yogurt during the preparation step. Kazutada et al. teaches finely cut or ground vegetables, extracts, juices, heated or cooked vegetables are added to yogurt before or after the fermentation. Kazutada et al. further teaches that the vegetables are added to one or both layers of yogurt and jelly prepared by using a gelatinizing agent. Applicant’s claim limitations require that cold cooked pureed vegetables are added to cold plain yogurt to form a cold homogeneous, uniform mixture of ready to eat vegetable yogurt, wherein no artificial additives or preservatives are added and the ready to eat vegetable yogurt is stored at refrigeration temperatures until consumed to prevent said active cultures of said yogurt from fermenting said cold cooked pureed

vegetables so that said cold cooked pureed vegetables retain their natural, unfermented, chemical makeup. Meanwhile, Kazutada et al. not only fails to teach a homogeneous uniform mixture (“vegetables are added to one or both layers of yogurt and jelly”, Kazutada et al., abstract), but fails to teach that the vegetables remain unfermented. In fact, Kazutada et al. **teaches away from the vegetables being unfermented** by expressly teaching “*a yogurt containing vegetables having softened fermentation odor and improved flavor, by adding vegetable to the yogurt during the preparation step.*” Moreover, nowhere in Kazutada et al. is there a disclosure or suggestion or teaching that the vegetables are pureed to form a cold vegetable puree that is added to the yogurt. Indeed such a teaching of adding cold pureed vegetables would inherently conflict with the teachings of Kazutada et al. because Kazutada et al. intends for the vegetables to become fermented. **Therefore, Kazutada et al. does not teach or suggest all the claim limitations of applicant’s claims.**

Masahiro et al. discloses a yogurt jelly containing vegetable and process to suppress grassy smell of vegetables and improve the taste and flavor by mixing vegetables, yogurt and a gelling agent. Nowhere in Masahiro et al. is there a disclosure, suggestion or teaching that the vegetables are pureed to form a cold vegetable puree that is added to the yogurt. Nor is there a teaching that no preservatives or artificial additives are added to the yogurt, instead Masahiro et al. teaches using a gelling agent. **Therefore, Masahiro et al. does not teach or suggest all the claim limitations of applicant’s claims.**

Lastly, Oliver discloses savory flavoring for yogurts comprise rosaceous fruit, preferably one or more of apple, pear, plum and/or damson. The savory flavoring additionally comprises one or more vegetables, herbs and/or spices. The application also provides yogurts flavored with

such savory flavorings. Oliver discloses a vegetable type yogurt wherein rosaceous fruit, 9 to 31 weight percent, is added as a stabilizing agent acting as a preservative for the yogurt food product. The addition of the rosaceous fruit in Oliver for preserving the yogurt food product conflicts with applicant's limitation that no preservatives be added to the yogurt. **Therefore, Oliver does not teach or suggest all the claim limitations of applicant's claims.**

Therefore, applicant's current claims are patentable over Hara, Kazutada, Masahiro and/or Oliver because none of the references, alone or in combination, teach or suggest all the claim limitations of applicant's claimed invention. Further, Applicant's current claims are patentable over Hara, Kazutada, Masahiro and/or Oliver because there is no teaching, suggestion or motivation to modify the references applied to omit preservatives, as is required by applicant's claims, because the references teach away from a vegetable yogurt having large weight percent of vegetables with no preservative or artificial flavorings added, as is required by applicant's claims.

The Examiner further indicated that US Patent No. 6,183,802 to Silva et al. teaches use of *Lactobacillus acidophilus* in yogurt production.

Silva discloses refrigerated, cultured dairy products such as yogurt having enhanced anti-mold stability are prepared by including minute quantities of a cultured dairy ingredient having been cultured with a propionic acid forming culture. The propionic bearing cultured dairy ingredient such as whey is added to a milk base that is then heat treated prior to inoculation and fermentation with a yogurt culture. Premature protein coagulation that can occur during the heat treatment step is minimized by adding minute quantities of a calcium sequestrant to the milk

base.


Applicant submits, as indicated supra, that claim 1 was amended to **no longer require** cultures of *Lactobacillus acidophilus*. Thereby restricting said claim, such that the combination of the above noted references would **not** produce the substance recited by claim 1.

Accordingly, reconsideration of the rejection of claims 1, 3, 5-7, 10-11, 13-15 and 18 under 35 USC §103(a) as being unpatentable over Hara, Kazutada, Masahiro, Oliver and/or Silva is respectfully requested.

CONCLUSION

In view of the remarks set forth above, it is respectfully submitted that the present application is in allowable condition. Reconsideration of the rejections; entry of the above noted amendments; and allowance of claims 1, 3, 5-7, 10-11, 13-15 and 18, as amended, are earnestly solicited.

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